

REMARKS

In the Office Action, claims 1-8, 10, 12, 14, 16, and 18 stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the August 22, 2007 Office Action, Applicants respectfully traverse the rejections. Thus, claims 1-8, 10, 12, 14, 16, and 18 are pending, with claims 1, 8, 10, 12, 14, 16, and 18 being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Rejections - 35 U.S.C. § 102

On pages 2 and 3 of the Office Action, claims 1 and 4 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,114,888 (Walley). In response, Applicants respectfully traverse the rejections.

In particular, claim 1 of the present application recites that a voltage detector detects control voltage from the control signal of the voltage controlled oscillator. Walley is cited in the Office Action to show the voltage detector; however, Applicants respectfully assert that the controller 325 of Walley receives the input 311 which is used to determine whether or not the Phase Lock Loop (PLL) is in lock. Since the controller 325 of Walley does not detect control voltage, Applicants respectfully assert that this structure is *not* disclosed or suggested by Walley or any other prior art of record. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each element of the claim within the reference. Therefore, Applicants respectfully submit that claim 1 is not anticipated by the prior art of record. Withdrawal of this rejection is respectfully requested.

Moreover, Applicants believe that claim 4 is also allowable over the prior art of record in that they depend from independent claim 1, and therefore are allowable for the reasons stated above. Also, the dependent claim 4 is further allowable because they include additional limitations. Thus, Applicants believe that since the prior art of record does not anticipate the independent claim 1, neither does the prior art anticipate the dependent claims. Applicants respectfully request withdrawal of the rejections.

Rejections - 35 U.S.C. § 103

On pages 3-15 of the Office Action, claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,114,888 (Walley) in view of U.S. Patent No. 5,999,024 (Kang), claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,114,888 (Walley) in view of U.S. Patent No. 5,166,641 (Davis et al.), claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,114,888 (Walley), claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,114,888 (Walley) in view of U.S. Patent No 5,686,864 (Martin et al.), and claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,114,888 (Walley) in view of U.S. Patent Publication No. 2002-005764 (Kobayashi et al.).

In response, Applicants respectfully traverse the rejections. Walley does not disclose the voltage detector, as mentioned above. Kang is cited in the Office Action to show the PLL where the division value is set based on a signal from the controller and the controller receives a control signal from the loop filter. Davis et al. are cited in the Office Action to show that the PLL has a phase detector that includes the charge pump. Martine et al. are cited in the Office Action to show the voltage controlled oscillator that includes at least two sub-voltage controlled oscillator. Kobayashi et al. are cited in the Office Action to show the voltage controlled oscillator that includes at least one inductor and one capacitor determining a frequency band and frequency gain of the voltage controlled oscillator. Applicants respectfully assert that claim 2, 3, and 5-7 are allowable over the prior art of record in that they depend from independent claim 1, and therefore are allowable for the reasons stated above. Also, the dependent claims 2, 3, and 5-7 are further allowable because they include additional limitations. Thus, Applicants believe that since the prior art of record does not anticipate the independent claim 1, neither does the prior art anticipate the dependent claims.

On pages 6-15 of the Office Action, claims 8, 10, and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,079,522 (Owen), claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,079,522 (Owen) in view of U.S. Patent No. 5,166,641 (Davis et al.), claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,079,522 (Owen) in view of U.S. Patent No. 6,114,888 (Walley), and claim 18 stands rejected under 35

U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,079,522 (Owen) in view of U.S. Patent Publication No. 2002-005764 (Kobayashi et al.). In response, Applicants respectfully traverse the rejections.

More specifically, claim 8 recites detecting control voltage of the control signal. Owen is cited in the Office Action to show a voltage controlled oscillator of a phase locked loop frequency synthesizer, but Applicants respectfully assert that Owen is silent in regards to detecting the control voltage of the control signal. Davis is cited in the Office Action to show a phase detector which includes a charge pump. Walley is cited in the Office Action to show that the phase gain is adjusted according to the control signal. Kobayashi et al. are cited in the Office Action to show that monitoring frequency gain of the VCO with respect to different parameters is performed. Therefore, Applicants respectfully assert that this arrangement is *not* disclosed or suggested by Owen, Davis et al. Walley, Kobayashi et al., or any other prior art of record.

It is well settled in U.S. patent law that the mere fact that the prior art can be modified does *not* make the modification obvious, unless the prior art provides an *apparent reason* for the desirability of the modification. Accordingly, the prior art of record lacks any apparent reason, suggestion or expectation of success for combining the patents to create the Applicants' unique arrangement of the method of detecting frequency gain of the voltage controlled oscillator.

Applicants respectfully assert that claims 10, 12, 14, and 16 are also allowable for the same or similar reasons stated above.

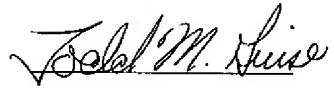
Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

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In view of the foregoing amendment and comments, Applicants respectfully assert that claims 1-8, 10, 12, 14, 16, and 18 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

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Respectfully submitted,



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